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EXAMINER	
BATES, KEVIN T	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/643,490	UZUN ET AL.	
	Examiner	Art Unit	
	KEVIN BATES	2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-66* is/are rejected.

7)☐ Claim(s) *67* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

This Office Action is in response to a communication made on October 15, 2009.

Claims 1, 18, 46, and 54 are currently amended.

Claim 67 has been newly added.

Claims 1-67 are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 6-13, 15-18, 21-23, 26-37, 39-46, 49-54, and 57-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enomoto (2003/0076781) in view of Linville (6026075) (Applicant's IDS), and in further view of Zimmermann (6910079).

Regarding claims 1, 46, and 54, Enomoto teaches a method comprising:

receiving information indicating a need to change an amount of data being transmitted through a first media access control (MAC) device to a client of the first MAC device (¶237-238; 247-248);

forming a message including an indication to a second MAC device to change a rate at which the second MAC device transmits data, wherein said forming the message

uses the information indicating the need to change the amount of data being transmitted to the client; wherein the first MAC forms the message (¶237-239); and

transmitting the message to the second MAC device over a network (¶239);

said forming the message is performed in response to receiving said information (¶237-238, 247-248).

Enomoto does not explicitly indicate that the client of the first MAC device determines the receiving rate is exceeding a set threshold when determining a need to change the amount of data being sent over the network, changing the rate at which the second MAC device transmits to the client, or having the total bandwidth allocation of the first MAC device unaffected.

Linville teaches a system that the first MAC device determines the receiving rate is exceeding a set threshold when determining a need to change the amount of data being sent over the network (Col. 8, lines 15 – 40), changing the rate at which the second MAC device transmits to the client (Col. 9, lines 15 – 25), and having the total bandwidth allocation of the first MAC device unaffected (Col. 9, lines 52 - 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use more detailed traffic monitoring on a per recipient basis to better predict possible buffer overloads while having a smaller effect on other traffic flows.

The combination of Linville and Enomoto teaches that the buffer threshold of the packets going to the client are considered when determining a need to change the

rates, but the combination fails to disclose the client determines a rate exceeding a set threshold and notifying the MAC device of a need to change the rate.

Zimmermann teaches a system for monitoring data rates and buffer threshold where the client monitors the clients' own buffer threshold and data rate and notifies the network nodes upstream a need to change the sending rate (Col. 4, lines 6 – 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Zimmermann's teaching of a client device can also participate and notify the needs of rate changes in the network transmission system of Enomoto to allow the client device to prevent buffer overflow at the receiving buffers of the client.

Regarding claims 18 and 35, Enomoto teaches an apparatus comprising:

a first media access control (MAC) device operable to be coupled to a network,

wherein the first MAC device is operable to receive information from a MAC client coupled to the first MAC device (¶106);

the first MAC device includes control logic configured to prepare a message for transmission on the network including an indication to change a rate at which another MAC device transmits data (¶237-238; 247-248); and

a MAC client coupled to the first MAC device (Figure 1, elements C1-C4).

Enomoto does not explicitly indicate that the client of the first MAC device determines the receiving rate is exceeding a set threshold when determining a need to change the amount of data being sent over the network.

Enomoto does not explicitly indicate that the client of the first MAC device determines the receiving rate is exceeding a set threshold when determining a need to change the amount of data being sent over the network, changing the rate at which the second MAC device transmits to the client, or having the total bandwidth allocation of the first MAC device unaffected.

Linville teaches a system that the first MAC device determines the receiving rate is exceeding a set threshold when determining a need to change the amount of data being sent over the network (Col. 8, lines 15 – 40), changing the rate at which the second MAC device transmits to the client (Col. 9, lines 15 – 25), or having the total bandwidth allocation of the first MAC device unaffected (Col. 9, lines 52 - 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use more detailed traffic monitoring on a per recipient basis to better predict possible buffer overloads while having a smaller effect on other traffic flows.

The combination of Linville and Enomoto teaches that the buffer threshold of the packets going to the client are considered when determining a need to change the rates, but the combination fails to disclose the client determines a rate exceeding a set threshold and notifying the MAC device of a need to change the rate.

Zimmermann teaches a system for monitoring data rates and buffer threshold where the client monitors the clients' own buffer threshold and data rate and notifies the network nodes upstream a need to change the sending rate (Col. 4, lines 6 – 36),

wherein that information to the server contains information relating to the amount of data store in the buffer (Col. 6, lines 2 – 16 and Table 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Zimmermann's teaching of a client device can also participate and notify the needs of rate changes in the network transmission system of Enomoto to allow the client device to prevent buffer overflow at the receiving buffers of the client.

Regarding claims 4, 21, and 37, Enomoto teaches the method of claims 1, 18 and 35 wherein the network includes a first datapath for transmitting data from the first MAC device to the second MAC device, and wherein the network includes a second datapath for transmitting data from the second MAC device to the first MAC device (Figure 1, where the ring network travels in both directions).

Regarding claims 6, 26, 39, 49, and 57, Enomoto teaches the method of claims 1, 18, 35, 46, and 54.

Enomoto does not explicitly indicate determining an extent to which a data buffer associated with the client of the first MAC device contains data; and preparing the information indicating the need to change the amount of data being transmitted through the first MAC device to the client of the first MAC device based on the extent to which the data buffer associated with the client of the first MAC device contains data.

Zimmermann teaches a system for providing feedback into the network to slow down transfer rates, where the receiving client is monitoring its buffer threshold and initiating the indication (Col. 4, lines 6 – 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use allow the client to send a congestion notice back into the network to prevent buffer overflows occurring on the receiving client.

Regarding claim 7 and 58, Enomoto teaches the method of claims 6 and 54 further comprising: transmitting, to the first MAC device, the information indicating the need to change the amount of data being transmitted through the first MAC device to the client of the first MAC device (¶237-238; 247-248).

Regarding claim 8, 27, 40, 50 and 59, Enomoto teaches the method of claims 1, 18, 35, 46, and 54 wherein the message further includes a MAC device address (¶238).

Regarding claim 9, 28 and 60, Enomoto teaches the method of claims 8, 27, and 59 wherein the MAC device address corresponds to one of the first MAC device, the second MAC device, and another MAC device (¶238).

Regarding claims 10, 29, 41, 51, and 61, Enomoto teaches the method of claims 1, 18, 35, 46, and 54 wherein the indication to the second MAC device to change the rate at which the second MAC device transmits data includes at least one of: a MAC device address, a data transmission rate, a ramp factor, and a flag (¶238).

Regarding claims 11, 30, 42, and 62, Enomoto teaches the method of claims 1, 18, 35, and 54 wherein the indication to the second MAC device to change the rate at

which the second MAC device transmits data includes a data transmission rate, the method further comprising: determining the data transmission rate (¶238).

Regarding claim 12 and 63, Enomoto teaches the method of claims 11 and 54 wherein the determining the data transmission rate further comprises at least one of: calculating the data transmission rate; selecting a value for the data transmission rate; and determining a ramp factor (¶238).

Regarding claims 13 and 64, Enomoto teaches the method of claims 1 and 54 further comprising: transmitting the message from the second MAC device to a third MAC device (¶214, where the congestion frame gets passed along the entire ring network).

Regarding claims 15, 31, 43, 52 and 65, Enomoto teaches the method of claims 1, 18, 35, 46, and 54 wherein the information indicating the need to change the amount of data being transmitted through the first MAC device to the client of the first MAC device includes at least one of: a data transmission rate, a counter value, a message indicating that a buffer threshold has been exceeded, and a signal from the client of the first MAC (¶238).

Regarding claim 16, 34, 45, 53, and 66, Enomoto teaches the method of claim 1 wherein: the information indicating the need to change the amount of data being transmitted through the first MAC device to the client of the first MAC device further comprises at least one of: information indicating the need to reduce the amount of data being transmitted, and information indicating the need to increase the amount of data being transmitted; and the indication to the second MAC device to change the rate at

which the second MAC device transmits data further comprises at least one of: an indication to the second MAC device to reduce the rate at which the second MAC device transmits data, and an indication to the second MAC device to increase the rate at which the second MAC device transmits data (¶237-238; 247-248).

Regarding claim 17, Enomoto teaches the method of claim 1 encoded in a computer readable medium as instructions executable on a processor, the computer readable medium being one of an electronic storage medium, a magnetic storage medium, and an optical storage medium (¶134).

Regarding claim 22, Enomoto teaches the apparatus of claim 21 wherein the first MAC device is further operable to transmit the message to the second MAC device (¶238-239).

Regarding claim 23, Enomoto teaches the apparatus of claim 21 wherein the second MAC device is configured to transmit the message to a third MAC device (¶238-239; 214, where the congestion frame gets passed along the entire ring network).

Regarding claim 32, Enomoto teaches the apparatus of claim 18 wherein MAC client further comprises packet processing circuitry coupled to the buffer (¶134).

Regarding claims 33 and 44, Enomoto teaches the apparatus of claims 32 and 35 wherein the packet processing circuitry includes the buffer control circuitry (¶134).

Claims 2-3, 5, 14, 19-20, 24-25, 38, 47-48, and 55-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enomoto in view of Linville and Zimmerman, and in further view of Knightly (20030163593).

Regarding claims 2-3, 5, 14, 19-20, 24-25, 38, 47-48, and 55-56, Enomoto teaches the method of claims 1, 18, 21, and 35.

Enomoto does not explicitly indicate wherein the network is a metropolitan area network (MAN), a resilient packet ring (RPR) network, or that the message is a resilient packet ring (RPR) fairness message.

Knightly provides a teaching of handling congestion in a ring network that is implemented in a a metropolitan area network (MAN) (Paragraph 5, lines 1-2), a resilient packet ring (RPR) network (Paragraph 7), and that the message is a resilient packet ring (RPR) fairness message (Paragraph 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made that Enomoto's congestion system could be implemented in the RPR system and use fairness messages to take advantage of the RPR standard protocol messages, while keeping the queues and flow classification of Enomoto.

Response to Arguments

Applicant's arguments filed October 15, 2009 have been fully considered but they are not persuasive.

The applicant argues that Enomoto fails to teach the idea that (a) the information used to form rate messages are received from the client, (b) that Enomoto fails to teach that client information indicates a need to change the amount of data being transmitted to the client, (c) that Zimmer fails to disclose that the client is a MAC client and that the information is transmitted directly to the server from the client to effect the rate change.

(a) Enomoto teaches that a system that detects (receives information) that destination node (MAC client) is receiving too much information and forms a message to reduce the congestion (¶236-238). Enomoto is not being relied upon to teach that the information is that the first MAC device is using has been received from the MAC client itself, Zimmerman has been provided to show that limitation. For the teaching provided by Zimmerman, see the rejection provided above.

(b) Enomoto teaches that a system that detects (receives information) that destination node (MAC client) is receiving too much information and forms a message to reduce the congestion (¶236-238). As result, since the MAC clients are one of the possible destinations, the MAC devices determine a need to change the amount of data being transferred to the destination. Linville further teaches that based on the knowledge that one destination is receiving too much data, that the formed message indicate which destination is receiving too much information and how to adjust transmission to only reduce the information sent to a particular destination (Col. 9, lines 15 – 25).

(c) Enomoto and Linville teach a system where the ring devices are in charge of monitoring the data sent to particular client devices and avoid congestion and overflow. Zimmerman teaches a system for monitoring the amount of transfer rates to clients, as part of that teaching Zimmerman teaches that the client itself can be also node that monitors its own traffic rate and buffer thresholds (Col. 4, lines 6 – 36). One of ordinary skill in the art can use the teaching of Zimmerman and his use of client controlled feedback to enhance the system of Enomoto. The system of Enomoto improved with

the teachings of Zimmerman would allow MAC clients themselves to monitor their buffer status and alert the MAC devices a need for rate changes.

Allowable Subject Matter

Claim 67 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN BATES whose telephone number is (571)272-3980. The examiner can normally be reached on M-F 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEVIN BATES/
Primary Examiner, Art Unit 2456